

STUDIES IN THE HELIANTHEAE (ASTERACEAE). XXIX.

NEW SPECIES OF *DIMEROSTEMMA* AND *OYEDAEA* FROM BRASIL

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The two genera, *Dimerostemma* Cass. and *Oyedaea* DC., are the two members of the Heliantheae subtribe Ecliptinae in Brasil that have achenes not constricted above and rays that are sterile. All of the Brazilian species had been placed in the genus *Oyedaea*, at least in the form of a synonym, until 1917 when Blake placed under *Dimerostemma* those species which had more quadrangular achenes and lacked squamellae between the awns of the pappus. The latter species also seemed to characteristically have large foliaceous bracts at the base of the involucre. After the study by Blake, the remnant of *Oyedaea* contained mostly a group of Andean species related to the type *O. verbesinoides* DC., but a few brasilian species remained in the latter genus.

The present paper deals with two new species from Brasil, one in *Dimerostemma*, and the other falling technically in the brasilian remnant of *Oyedaea*. It is notable that, in spite of the supposed generic placements, both species have many floral details in common, and they seem to be related. The achenes are glabrous, the corolla lobes lack spicules on the outer surface, the filaments are fleshy and yellow, and the style branches have numerous short-stalked capitate glands abaxially in both species. In contrast, typical *Oyedaea* has achenes with distinct setulae on at least the margin, has an awned pappus, and has spicules on the corolla lobes. It would seem that a future natural concept would place the new species of *Oyedaea* in or near the genus *Dimerostemma* with which it shares so many characters. Still, for the present, the more flattened achenes, the squamellae in the pappus, and the scarcely enlarged subinvolucral bracts seem to place the new species near *Oyedaea humboldtii* (Gardn.) Benth. ex Baker of Brasil.

*DIMEROSTEMMA* BISHOPII H. Robinson, sp. nov.

Plantae suffruticosae ca. 1 m altae pauce ramosae. Caules brunnescentes leniter hexagonales vix striati dense retrorse hirsuti; internodis 3.5-9.0 cm longis. Folia opposita, petiolis 3-10 mm longis; laminae ovatae 3.0-6.5 cm longae et 1.8-4.7 cm latae base late rotundatae vel plerumque leniter cordatae margine multo interdum irregulariter serrulatae apice breviter acuminatae supra dense pilosae subtus pallidiores dense pilosae vel subvillosae et dense glandulo-punctatae e base trinervatae. In-

florescentiae pauce ramosae, pedunculis plerumque 7-12 cm longis retrorse hirsutis. Capitula ad 5.5 cm latis (with rays); bractee involucri exteriores foliaceae ca. 7 ellipticae 6-12 mm longis et 5-8 mm latis integrae acutae dense pilosae subtus glandulopunctatae fere ad apicem trinervatae; bractee 12-14 mediales in apicis reflexae foliaceae in bracteis interioribus sensim minores; bractee 12-14 interiores oblongae ca. 5 mm longae plerumque in apicis erectae breviter acutae non foliaceae margine inferne scariosae glabrae extus superne puberulae et glandulopunctatae; paleae bracteis interioribus similes. Flores radii ca. 22 steriles; corollae flavae, tubis ca. 1 mm longae, limbis ellipticis ad 20 mm longis et 8 mm latis subtus dense glandulopunctatae et sparse pilosulis; achaenia radii triangularia ca. 3 mm longa glabra apice tridenticulata. Flores disci 150-250 in capitulo; corollae sordido-flavae 4.5-5.0 mm longae, tubis breviter cylindraceutis ca. 1 mm longis glabris, faucibus anguste campanulatis 2.8-3.2 mm longis glabris, lobis ca. 0.7 mm longis et latis intus praeter basem papillosis extus sparse glandulopunctatis; filamenta in partibus superioribus 0.6-0.7 mm longa; thecae antherarum nigrescentes ca. 2.5 mm longae; appendices antherarum flavae ovatae ca. 0.4 mm longae et 0.37 mm latae extus multo glanduliferae; rami stylorum abaxialiter multo glanduliferi in acuminis breviter appendiculatae; achaenia disci bilateralia subquadrangularia ca. 4 mm longa et ca. 1.3 mm latae non alata apice bidenticulata et vix minute crenulata. Grana pollinis in diametro ca. 30  $\mu$ m.

TYPE: BRASIL: Goias: 68 kn NW along road from Iaciara to Nova Roma. Elev. 1400 ft. Subshrub 1 m tall, flowers yellow. Feb. 5, 1981. *R.M. King & L.E. Bishop 8803* (Holotype, UB; isotype, US).

The new species is clearly a *Dimerostenma* as shown by the foliaceous bracts at the base of the involucre and the essential details of the corollas and achenes. Nevertheless, the plant does not give the initial impression of a *Dimerostenma* because of the more herbaceous and more pointed leaves. Also, the achenes seem to have no wings and no awns, features at least partially present in typical members of the genus. The hairless parts of the flowers that so resemble those of the following species, are a further distinction from typical *Dimerostenma* which commonly has some setulae on the achene and distinct helianthean hairs near the sinuses of the disk corollas.

OYEDAEA EPISCOPALIS H. Robinson, sp. nov.

Plantae fruticosae ad 1.5 m altae mediocriter ramosae. Caules rufo-brunnescentes teretes leniter striati dense antrorse puberuli vel scabridi, internodiis plerumque 1-2 cm longis. Folia opposita, petiolis indistincte demarcatis 2-3 mm longis; laminae ellipticae plerumque 2.5-4.0 cm longae et 0.7-1.3 cm latae base acuminatae margine multo serrulatae anguste recurvatae apice breviter acutae supra atro-virides subbullatae dense

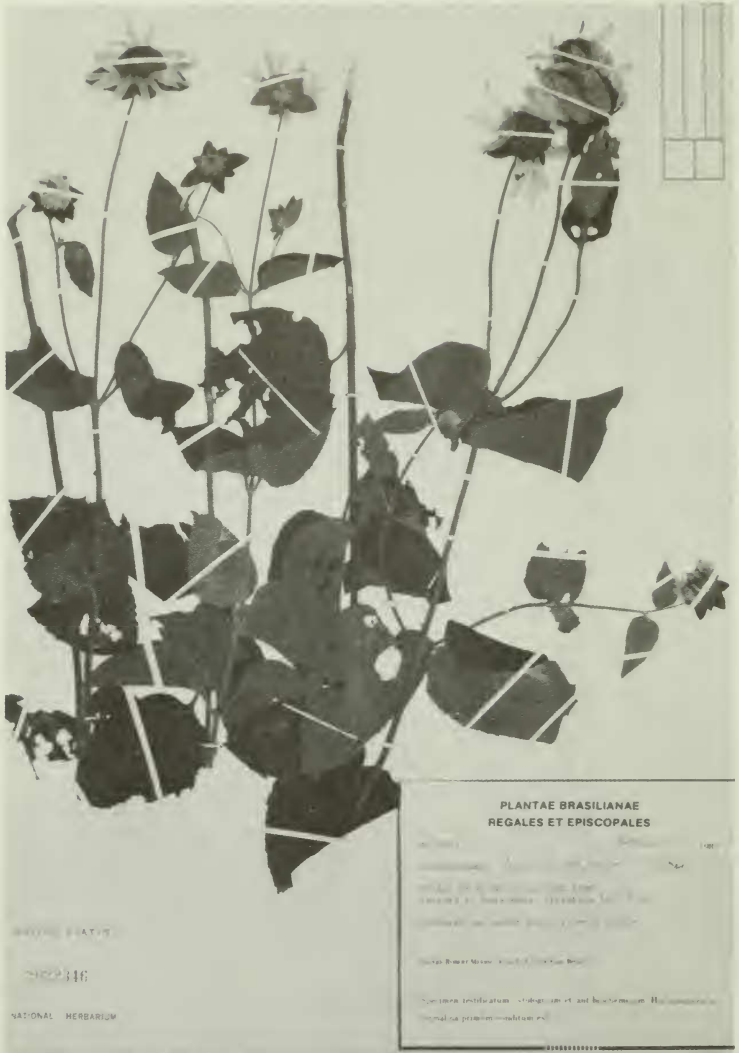
antrorse scabridae subtus pallidae dense hispidulo-subtomentosae et glandulo-punctatae in nervis et nervulis dense exsculpto-reticulatae, nervis pinnatis, nervis secundariis in partibus inferioribus leniter ascendentioribus. Inflorescentiae terminales plerumque trifidae, pedunculis plerumque 3-7 cm longis dense antrorse scabridulae et glandulo-punctatae. Capitula ad 3.5 cm lata (with rays); bracteae involucri 8-10 exteriores anguste foliiformes 6-9 mm longae et ca. 2 mm latae obscure trinervatae ca. 12 interiores plerumque subscarioisae margine puberulo-fimbriatae apice obtusae extus lateraliter glabrae ad medio puberulae vel scabridulae et glandulo-punctatae; paleae bracteae interioribus similes in apicis plerumque rotundatae. Flores radii 10-12 steriles; corollae flavae extus dense glandulo-punctatae, tubis ca. 1.5 mm longae sparse puberulis, limbus oblongae ad 9 mm longae et 4.5 mm latae; achaenia radii triangulata ad 2.3 mm longa superne minute puberula apice tridenticulata interdum in aristis 1-3 ad 0.8 mm longis producta. Flores disci ca. 70 in capitulo; corollae sordido-flavae ca. 4.5 mm longae extus sparse puberulae, tubis cylindraceis ca. 1 mm longis, faucibus anguste campanulatis ca. 2.5 mm longis, lobis ca. 0.7 mm longis et latis intus praeter basem papillois extus sparse glandulo-punctatae; filamenta in partibus superioribus ca. 0.5 mm longa; thecae antherarum nigrescentes ca. 2 mm longae; appendices antherarum nigrescentes late ovatae ca. 0.25 mm longae et 0.37 mm latae extus multo glanduliferae; rami stylorum abaxialiter multo glanduliferi in acuminis breviter appendiculati; achaenia disci complanata ca. 5 mm longa et 2 mm lata margine distincte integriter pallide alata plerumque glabra superne sparse minute scabridula apice breviter bidentata et minute squamulifera. Grana pollinis in diametro ca. 27  $\mu$ m.

TYPE: BRASIL: Bahia: 14 km NW from the town of Rio das Contas along road to Pico das Almas. Elev. 3300 ft. Slender shrub to 1 1/2 meters tall, flowers yellow. Jan. 24, 1981. *R.M.King & L.E.Bishop 8633* (Holotype, UB; isotype, US).

As indicated above, the new species belongs to a small group of brasilian species that do not seem to be true members of the genus *Oyedaea*. The new species seems closest to *O. humboldtii* (Gardn.) Benth. ex Baker in Mart., but the latter has less firm and more herbaceous leaves without the dense reticulum of exsculptate veins beneath. Also, the new species has only short lobes at the top of the disk achene rather than awns.

#### LITERATURE CITED

- Blake, S. F. 1917. II. A revision of the genus *Dimerostemma* Cass. Contrib. from the Gray Herb., new series 52: 8-16.



*Dimerostemma bishopii* H. Robinson, Isotype, United States National Herbarium. Photos by Victor E. Krantz, Staff Photographer, National Museum of Natural History.



*Oyedaea episcopalis* H. Robinson, Isotype, United States National Herbarium.



Enlargements of heads. Top. *Dimerostemma bishopii*.  
Bottom. *Oyedaea episcopalis*.